

2825/4

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<b>TRANSMITTAL FORM</b>  <i>(to be used for all correspondence after initial filing)</i>	Application Number	09/732,181
	Filing Date	12/6/00
	First Named Inventor	Steven Teig
	Group Art Unit	2825
	Examiner Name	Leigh M. Garbowski
Total Number of Pages in This Submission	Attorney Docket Number	SPLX.P0003

Enclosures (Check all that apply)		
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<b>SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT</b>		
Firm Or Individual name	Mani Adeli, Reg. No. 39,585 of Stattler Johansen & Adeli LLP	
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Date	November 9, 2003	

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PATENT  
Docket No. SPLX.P0003

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Mani Aden

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Steven Teig

Serial No.: 09/732,181

Filing Date: 12/6/00

For: RECURSIVE PARTITIONING  
PLACEMENT METHOD AND  
APPARATUS

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INFORMATION DISCLOSURE  
STATEMENT UNDER 37 C.F.R. § 1.97

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Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, applicants submit with this Information Disclosure Statement the attached Form PTO-1449, and copies of the documents listed in the 1449 form for consideration by the Examiner. The Examiner is requested to make these documents of record. Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

11/14/2003 SZEWDIE1 00000048 09732181

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This Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

This Information Disclosure Statement is submitted: After receipt of a first Office Action on the merits but before a final Office Action or Notice of Allowance. A fee is required. A fee in the amount of \$180 is enclosed.

If this fee is separated from this IDS or if the Patent Office determines that an extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 50-1128** referencing SPLX.P0003. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: November 9, 2003

Respectfully submitted,

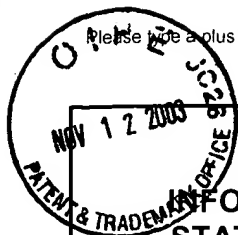
By: \_\_\_\_\_

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<b>Substitute for form 1449A/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Application Number</b>	09/732,181
				<b>Filing Date</b>	12/6/00
				<b>First Named Inventor</b>	Steven Teig
				<b>Group Art Unit</b>	2825
				<b>Examiner Name</b>	Leigh M. Garbowski
<b>Sheet</b>	1	of	7	<b>Attorney Docket Number</b>	SPLX.P0003

U.S. PATENT DOCUMENTS						
Examiner* Initials	Cite No. <sup>1</sup>	U.S. Patent Document		Date of Publication MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	1.	2001/0009 031	A1	07-19-2001	Nitta et al.	
	2.	2002/0182 844	A1	12-05-2002	Igarashi et al.	
	3.	2003/0025 205	A1	02-06-2003	Shively	
	4.	2003/0005 399	A1	01-02-2003	Igarashi et al.	
	5.	4,593,363		06-03-1986	Burstein et al.	
	6.	4,855,929		08-08-1989	Nakajima	
	7.	5,375,069		12-20-1994	Satoh et al.	
	8.	5,587,923		12-24-1996	Wang	
	9.	5,618,744		04-08-1997	Suzuki et al.	
	10.	5,633,479		05-27-1997	Hirano	
	11.	5,637,920		06-10-1997	Loo	
	12.	5,640,327		06-17-1997	Ting	
	13.	5,663,891		09-02-1997	Bamji et al.	
	14.	5,757,089		05-26-1998	Ishizuka	
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	19.	5,980,093		11-09-1999	Jones et al.	
	20.	6,070,108		05-30-2000	Andreev et al.	

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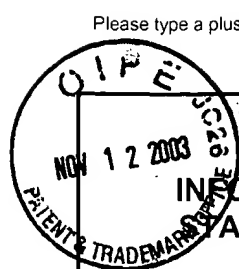
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# **INFORMATION DISCLOSURE STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Application Number				09/732,181	
Filing Date				12/6/00	
First Named Inventor				Steven Teig	
Group Art Unit				2825	
Examiner Name				Leigh M. Garbowski	
Attorney Docket Number				SPLX.P0003	
Sheet	2	of	7		

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22.	6,209,123	B1	03-27-2001	Maziasz et al.	
23.	6,253,363	B1	06-26-2001	Gasarov et al.	
24.	6,295,634	B1	09-25-2001	Matsumoto	
25.	6,324,674	B2	11-27-2001	Andreev et al.	
26.	6,324,675	B1	11-27-2001	Dutta et al.	
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34.	6,448,591	B1	09-10-2002	Juengling	
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39.	6,543,043	B1	04-01-2003	Wang et al.	
40.	6,546,540	B1	04-08-2003	Igarashi et al.	
41.	6,557,145	B2	04-29-2003	Boyle et al.	
42.	6,567,967	B2	05-20-2003	Greidinger et al.	

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Application Number Filing Date First Named Inventor Group Art Unit Examiner Name Attorney Docket Number				09/732,181 12/6/00 Steven Teig 2825 Leigh M. Garbowski SPLX.P0003	
Sheet	3	of	7		

**FOREIGN PATENT DOCUMENTS**

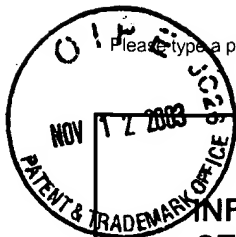
Examiner* Initials	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T 6
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code (if known)				
	43.	JP	411296560	A	Matsumoto et al.	10-29-1999	with English translation of Abstract;	
	44.	JP	2000-82743	A	Igarashi et al.	03-21-2000	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	45.	JP	H03-173471	A	Tawada et al.	07-26-1991	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	46.	JP	H05-243379	A	Masako Kubota	09-21-1993	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	47.	JP	H05-102305	A	Akihiro Sato	04-23-1993	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	48.	JP	H07-86407	A	Shinpei Miura	03-31-1995	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	4	of	7	Application Number	09/732,181
				Filing Date	12/6/00
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	Leigh M. Garbowski
				Attorney Docket Number	SPLX.P0003

### FOREIGN PATENT DOCUMENTS

49.	JP	H09-162279	A	Masaaki Yoshida	06-20-1997	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
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				Group Art Unit	2825
				Examiner Name	Leigh M. Garbowski
				Attorney Docket Number	SPLX.P0003

**FOREIGN PATENT DOCUMENTS****NON PATENT LITERATURE DOCUMENTS**

Examiner* Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 6
	50.	Ahuja, R. et al., Faster Algorithms for the Shortest Path Problem, Journal of the Association for Computing Machinery, vol. 37, No. 2, April 1990, pp. 213-223.	
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	52.	Brambilla, A. et al., Statistical Method for the Analysis of Interconnects Delay in Submicrometer Layouts, IEEE, 8/2001, pp. 957-966.	
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	55.	Cheng, K. et al., Manhattan or Non Manhattan? A Study of Alternative VLSI Routing Architectures, pp 47-52, 2000.	
	56.	Cheng, K., Steiner Problem in Octilinear Routing Model, a Thesis Submitted for the Degree of Master of Science, National University Singapore, 1995, pp. 1-122.	
	57.	Chip Model with Wiring Cost Map, August 1983, IBM Technical Disclosure Bulletin, vol. 26, iss. 3A, pp. 929-933.	
	58.	Cong, J. et al., Efficient Heuristics for the Minimum Shortest Path Steiner Arborescence Problem with Applications to VLSI Physical Design, Cadence Design Systems and UCLA Computer Science Department, pp.88-95.	
	59.	Cong, J. et al., Performance-Driven Multi-Layer General Routing for PCB/MCM Designs, UCLA Computer Science Department, 1998, pp. 356-361.	
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	61.	Fang, S. et al., Constrained Via Minimization with Practical Considerations for Multi-Layer VLSI/PCB Routing Problems, 28 <sup>th</sup> ACM/IEEE Design Automation Conference, 1991, pp. 60-65.	
	62.	Hom, I. et al., Estimation of the Number of Routing Layers and Total Wirelength in a PCB Through Wiring Distribution Analysis, 1996, pp. 1-6.	

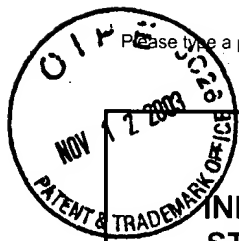
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Group Art Unit	2825
Examiner Name	Leigh M. Garbowski
Attorney Docket Number	SPLX.P0003

Sheet	6	of	7
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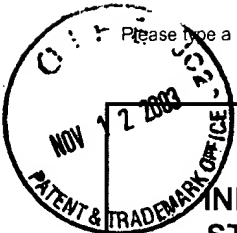
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Application Number 09/732,181 Filing Date 12/6/00 First Named Inventor Steven Teig Group Art Unit 2825 Examiner Name Leigh M. Garbowski Attorney Docket Number SPLX.P0003			Sheet 7 of 7	

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